

University of Aberdeen

Ionising Radiation Safety Arrangements

APPENDIX 6 Audit

Version 3

May 2017

Authorised by Radiation Hazards Sub Committee

A6.1 Radioactive material stock and lab check

The RPS for each area should complete the *Radioactive material stock and lab check* sheet every 4 months. The aims of the checks are:-

- to ensure that the inventory of radioactive material recorded on the iso-inventory system is correct and all stocks are appropriately numbered and are stored in the correct location according to the inventory; and
- to check that for each lab that contamination monitoring is being carried out correctly, according to appendix 5;
- to ensure all contamination monitors are working correctly i.e. that battery levels are OK, background rate normal and within calibration date;
- to ensure that radiation areas are demarcated and appropriate signs displayed;
- to check the area is clean and tidy; and
- to check any radioactive waste bags are appropriately labelled according to the records on the iso-inventory system.

Radiation safety audits within the University will be carried out by the Radiation Protection Service and the RPS for each area. The basis for the audit will be the form in appendix 6. Audits will be carried out at regular intervals that should not exceed 2 years. At the end of the audit an action plan will be agreed between the RPA and the RPS. The form should then be signed off by the Head of School before being presented to the Radiation Hazards Sub Committee. It is the responsibility of the Head of School to ensure that any actions identified in the audit are carried out and the responsibility of the sub-committee to monitor progress in carrying out any actions.

Radioactive material stock and lab check sheet

Checks carried out by	Date
Department	
Stock check to be carried out every 4 months in each department for all stock	
Print out a copy of the stock sheet from the Iso-inventory system. Log on as an RPS go to “ <i>Stocks on site</i> ”, select the area you are checking from the dropdown menu and click “ <i>List stock</i> ” and then print the list.	
Storage locations checked	
I have checked the stock in the storage locations noted above against the current stock sheet produced by the iso-inventory system (attach stock check sheet)	
<input type="radio"/> and found that all stocks were correctly labelled and stored in the location as stated on the stock sheet.#	
<input type="radio"/> and found there to be discrepancies between the stock sheet and the stocks found at the storage location, as a result the following action was taken:-#	
Signature of stock checker	

Delete as appropriate

Lab Check to be carried out every 4 months on all labs in each department

Checks carried out by

Date

Print out a list of current waste bags from the iso system. Form the RPS menu go to "WASTE BAGS" and print off a copy of the screen

Lab	Is contamination monitoring taking place and appropriate records kept?	Is the appropriate contamination monitor used, batteries OK and with calibration date?	Is appropriate signage displayed?	Are areas correctly demarcated and is work confined to these areas?	Area radiation areas and sinks clean and tidy?	Are waste bags current and located as listed on the iso system?
	Yes	Yes	Yes	Yes	Yes	Yes
	No state action taken	No state action taken	No state action taken	No state action taken	No state action taken	No state action taken
	Yes	Yes	Yes	Yes	Yes	Yes
	No state action taken	No state action taken	No state action taken	No state action taken	No state action taken	No state action taken
	Yes	Yes	Yes	Yes	Yes	Yes
	No state action taken	No state action taken	No state action taken	No state action taken	No state action taken	No state action taken

Checks to be make every 12 months

Are all risk assessments listed on the iso-system still valid? Yes# / No# state assessments that can be removed

Are all current radiation workers still active Yes# / No# please deactivate all non current workers

Number of current workers after deactivations

Signature of lab checker

A6.2 General audit carried out by radiation protection service

These audits will be carried out at regular intervals that should not exceed 2 years by the Radiation Protection Service. At the end of the audit an action plan will be agreed between the RPA and the RPS. The form should then be signed off by the Head of School before being presented to the Radiation Hazards Sub Committee. It is the responsibility of the Head of School to ensure that any actions identified in the audit are carried out and the responsibility of the sub-committee to monitor progress in carrying out any actions.

Audit for assessing compliance with Ionising Radiation Regulations 1999 and Radioactive Substances act 1993

Note: Please fill this form in electronically the boxes will expand automatically

1. Responsibilities

1.1. Area being audited and school	
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Head of School	
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1.2. Date of last audit		1.3. Date of this audit	
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1.4. Have the actions identified in the previous audit been addressed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If no please give details	

Radiation protection supervisors			
Name	Area of responsibility	Date of appointment	Date of training or last refresher

Are RPS duties clearly identified?	
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Have a sufficient number of RPS been appointed?		If no state numbers required & proposed action
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2. Radiation workers

2.1. How many radiation workers are registered in your area?		
2.2. Number of registered radiation workers who are active?		
2.3. Have all non active workers been deactivated on iso-inventory?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
2.4. Have all currently active registered radiation workers been given basic radiation protection training in the last 3 years?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
2.5. Have all currently active registered radiation workers been given specific training in your areas?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
2.6. Have training records kept and up-to-date?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action

3. Facilities and equipment

3.1. List the laboratories and equipment that this audit covers				
Room	Equipment	Under maintenance contract? ¹	Does the equipment contained sealed sources	Are sources registered or exempt
¹ If no to any of the above please state details				

4. Risk assessment

4.1. Have risk assessments been carried out for all uses of radiation?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
4.2. Do they cover all areas where radiation is used?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
4.3. Have all risk assessments been reviewed in the last 12 months?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
4.4. Have the arrangements for pregnant females identified in risk assessment been made?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If yes state where they are documented. If no state reason & proposed action

5. Local rules

5.1. Last review date?	
5.2. Have the local rules been brought to the attention and discussed with all staffing working in radiation areas?	<input type="checkbox"/> Yes <input type="checkbox"/> No If no state reason & proposed action
5.3. How are changes to the local rules disseminated to staff?	

6. Personal protective equipment (PPE) and shielding

6.1. Is the PPE identified in the risk assessment available and in use?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
6.2. Is the shielding and shielded equipment identified in the risk assessment available and in use?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
6.3. Are there any issues of staff not wearing PPE when advised to do so?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action

7. Use of unsealed radioactive sources

7.1. Are suitable contamination monitors available in all radiation areas?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
7.2. Have all contamination monitors been checked by the Radiation Protection Service in last 12 months?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action

7.3. Are contamination checks made before and after work and records kept?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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7.4. Are routine wipe tests made extending to 'clean areas' and records kept as described in the contamination monitoring procedures	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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7.5. Are washing facilities available at the exit of all controlled areas where unsealed sources are used?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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7.6. Is protective eyewear used?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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7.7. Are sources transported in robust containers identifying the sources and activity.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
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8. Use of sealed sources

8.1. List of sources					
Source identifier	Radionuclide	Reference date	Activity on reference date	Activity Now	Source registered, HASS or exempt

8.2. Are sources stored in a secure location?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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8.3. Have all sources been wipe tested in the last 12 months?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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8.4. Are any sources no longer in use and ready for disposal	<input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes state which sources
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8.5. have all sources been registered on UOA source inventory held by Radiation Protection Service	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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8.6. Have the sources in your department been checked against this inventory in the last twelve months?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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8.7. Do you have a system in place for checking sources in and out their secure location?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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9. Contingency Plans

9.1. Are the contingency plans identified in the risk assessment documented in the local rules?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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9.2. Are relevant staff made aware of the contingency plans?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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9.3. Have the contingency plans been rehearsed in the last two years?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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10. Personal monitoring

10.1. Have the dosimeters identified in the risk assessment been issued to staff?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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10.2. How many staff are issued with dosimeters	
<ul style="list-style-type: none"> • Monthly body badges • Monthly badges and finger rings • Two monthly badges 	

10.3. Are there any problems with staff wearing dosimeters?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If yes state reason & proposed action
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10.4. Is there a formal system in place for issuing and collecting dosimeters?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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10.5.		
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10.6. Is the investigation level summarised in the local rules	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no state reason & proposed action
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10.7.		
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11. Incidents (Equipment or staff related)

11.1. Please summarise the number and nature of radiation incidents that have occurred in your area since the last audit. Include significant spills and staff exceeding dose investigation levels

Date incident occurred	Description of incident	Summary of preventative actions put in place

12. Action plan

Please summarise the actions that you have identified in this document in the table below.

Question	Proposed action	Action Party	Target date for completion	Date completed

13. RPA Comments

Signature of RPA	
Print Name	Date

Audit carried out by
Signature of Head of School
Date presented to the University Radiation Hazards Subcommittee
Signature of Chair
Date of next Audit